Audit Matrix Example APPENDIX C

Lead Auditor:	Date:		Or	gan	iza	tion	:						Fina	I		Pa	age '	1 of :	2	
Audit Area	Location	Point of Contact	4.1 General Requirements	4.2 Environmental Policy	4.3.1 Environmental Aspects	4.3.2 Legal & Other Requirements	4.3.3 Objectives & Targets	4.3.4 Environ. Mgmt. Programs	4.4.1 Structure & Responsibility	4.4.2 Train. Aware. & Competence	4.4.3 Inter. & Exter. Communications	4.4.4 EMS Documentation	4.4.5 Document Control	4.4.6 Operational Control	4.4.7 Emer. Preparedness & Resp.	4.5.1 Monitoring & Measure	4.5.2 Non-Conf. & Correc. & Prevent. Act.	4.5.3 Records	4.5.4 EMS Audits	4.6 Management Review
Branch, Lab, Project	Building & Room #	Name & Phone #					(Mark	w/an	"X" an	Ap od then	plical shade	ole El	emen	i ts eleme	ents to	be aud	dited)			
0540, Environmental Managem	nent Office										0,144									
Division Office Chief	6/135	Mike Blotzer - 8159																		
Haz. Waste Management Program	6/212	Contact																		
Spill Control Plan	6	Contact																		
Air Discharge	6	Contact																		
0620,																				L
Haz. Materials Packaging & Storage	212	Contact																		
5000,																				
Haz. Waste Accumulation/Storage	301/302/309	Contact																		
Mercury Spill Control	16/ 301	Contact																		
Toxic Gas Control	302	Contact																		
Ballistic Impact Gun Operations	49	Contact																		
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Audit Matrix Example

⊠ Planned Organization: ☐ Final Lead Auditor: Date: Page 2 of 2 4.4.3 Inter. & Exter. Communications 4.4.2 Train. Aware. & Competence 4.4.7 Emer. Preparedness & Resp. 4.3.2 Legal & Other Requirements 4.4.1 Structure & Responsibility 4.3.4 Environ. Mgmt. Programs 4.3.1 Environmental Aspects 4.5.1 Monitoring & Measure 4.4.4 EMS Documentation 4.5.2 Non-Conf. & Correc. 4.1 General Requirements 4.4.6 Operational Control Location **Point of Contact** 4.2 Environmental Policy 4.6 Management Review **Audit Area** 4.4.5 Document Control 4.5.4 EMS Audits 4.5.3 Records Branch, Lab, Project Building & Room # Name & Phone # Applicable Elements (Mark w/ an "X" and then shade or circle the elements to be audited) 6000. Power Energy Flight Orbit 301/333 Contact Personnel/Equipment Fall Hazards 2T/5T Contact Contact Flight/Grnd. Experiments (Flight Cert. Mat.) 16/104/110/301/333A/H4/FV 5000. Welding Operations CW Contact 7000, Natural Gas Pipeline Leak CW Contact CW Contact Equip./Assembly Accident/Emer. Plans Machine Shop Operations (Welding) 14/50 Contact

NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST EXAMPLE APPENDIX C

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.2 ENVIRONMENTAL POLICY		
1. Does GRC have an environmental policy that is relevant to its activities, products and services? (M)		
2. Does the policy reflect the GRC's values and guiding principles (commitment to comply with regulations)? (M)		
3. Has GRC's Environmental Policy been approved by GRC's Environmental Pollution Control Board and has someone been identified and given the authority to oversee and implement the policy? (M)		
evidence - 1) Continual improvement of the EMS (M) 2) Prevention of Pollution (M)		
4. Does the policy guide the setting and review of environmental objectives and targets? (M)		
5. Does the policy guide GRC towards monitoring appropriate technology and management practices? (M)		
6. Are there commitments embodied in the environmental policy for support for continual improvement and support for the prevention of pollution? (M)		
7. Is there evidence that the Policy is maintained? (M)		
evidence - 1) Management review of policy. (M)		
8. Is there evidence that the Policy is communicated to all team members? (M/E)		
evidence - Ask 10 administrative team members if policy was communicated.		
9. Is there evidence that the Policy has been made available to the public? (M/E))		
evidence - Call the facilities general number and request.		

GENERAL GRC EMS QUESTIONS		
10. What do you know about GRC's Environmental Policy? (M/E)		
11. How does GRC's Environmental Policy affect your work? (M/E)		
12. How do you fulfill the goals of the Environmental Policy in your position? (M/E)		
13. How is the Policy made available to the public? (M/E)		
14. How is the policy communicated to the employees? (M/E)		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC)		= [X}/14* 100 # Observations (O)
# of CPARs generated		

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.3.1 ENVIRONMENTAL ASPECTS		
1. Has GRC identified the environmental aspects related to its activities, products and services? (M)		
2. Has GRC identified the impacts related to those aspects? (M)		
3. Has GRC determined which of those impacts are significant? (M)		
4. Are the aspects related to those impacts considered in setting the objectives and targets? (M)		
5. Are the listed aspects and impacts kept up-to-date? (M)		
evidence - 1) Revisions to the list of Environmental Aspects. 2) New activities are on the list.		
6. Has GRC established and maintained adequate procedure(s) related to fulfill the above? (M)		
7. Is there evidence that the procedure to identify and to prioritize the Environmental Aspects is implemented? (M)		
evidence - 1) List of significant Environmental Aspects. 2) List of aspects in a matrix.		
8. Is there evidence that the significant Environmental Aspects were considered when setting Environmental Objectives and Targets? (M)		
evidence - There is at least one significant Environmental Aspect that relates to an Environmental Objective and Target.		

QUESTIONS SPECIFIC TO GRC EMS 4.3.1 PROCEDURES		
9. Has GRC updated Chapter 1 of GRC EPM to reflect the current NPG 8553 ? (M)		
evidence - Review current version of GRC Chapter 1 of GRC EPM		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.	Percentile :	= [X}/9* 100
# of EMS Nonconformances (NC) # of CPARs generated		# Observations (O)

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.3.2 LEGAL AND OTHER REQUIREMENTS		
1. Has GRC identified the environmental regulatory requirements related to its facility? (M/E)		
evidence - a list of Legal and Other Requirements.		
2. Does GRC have access to those requirements? (M/E)		
evidence - Copies of the regulations or CD ROM.		
3. Has GRC identified the other environmental requirements to which they subscribe? (M)		
4. Does GRC have access to those requirements? (M)		
5. Are there procedure(s) established and maintained to fulfill the above? (M/E)		
6. Is there evidence that relevant personnel are made aware of the Legal and Other Requirements? (M)		
evidence - Ask for record of communication between environmental staff members.		
evidence - Ask the environmental staff who else is relevant and verify they received the information.		

QUESTIONS SPECIFIC GRC EMS 4.3.2 PROCEDURES		
7. Has GRC's EMO reviewed compliance inspections results and corrections? (M)		
evidence - review recent compliance inspections to GRC-P4.7 LeRC Corrective/Actions System		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.	Percentile	= [X}/7* 100
# of EMS Nonconformances (NC) # of CPARs generated		# Observations (O)

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.3.3 OBJECTIVES AND TARGETS		
1. Does GRC have documented objectives and targets? (M)		
2. Was the procedure to establish the Environmental Objectives and Targets followed? (M)		
3. Are those objectives and targets established for each relevant function and level within the GRC? (M)		
4. Are those objectives and targets maintained? (M/E)		
5. When establishing and reviewing the objectives and targets, has GRC considered the following: legal and other requirements; its significant environmental aspects; its technological options; its financial, operational, and business requirements; and the views of interested parties? (M)		
6. Are the objectives and targets consistent with the Environmental Policy, including the commitment to prevention of pollution? (M)		
7. Are the Environmental Objectives and Targets signed by upper management? (M)		

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QUESTIONS SPECIFIC TO GRC EMS 4.3.3 OBJECTIVES AND TARGETS		
8. Have any of GRC's Objectives and Targets been achieved? (M)		
9. What has been the impact of GRC's ESAP ? (M/E)		
evidence - ask one GRC (M/E) about the impact.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC)		= [X}/9* 100 # Observations (O)
# of CPARs generated		· /

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.3.4 ENVIRONMENTAL MANAGEMENT PROGRAMS		
1. Has GRC established programs for achieving its objectives and targets? (M)		
2. Is there evidence that programs are in place? (M/E)		
evidence - 1) Standardized work documents. 2) Visual control boards. 3) Ask the responsible person(s).		
3. Does GRC maintain those programs? (M/E)		
evidence - 1) Tracking progress. 2) Modified EMP's with revision dates. 3) Results of monitoring and measuring. 4) Modified standardized work.		
4. Does each program designate the responsible persons for achieving those objectives and targets at each relevant function and level of the GRC? (M/E)		
5. Does each program include a means and time frame by which they are to be achieved? (M)		
6. Are the programs amended when new developments occur, or when the activities, products, or services are modified? (M)		

QUESTIONS SPECIFIC TO GRC EMS 4.3.4 EMPs		
7. How has GRC EPM environmental management programs managed GRC objectives and targe	ts?(M)	
evidence - review and report on progress with EPM Chapter Leads		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.	Darcantila	= [X}/7* 100
# of EMS Nonconformances (NC) # of CPARs generated		# Observations (O)

10

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.1 STRUCTURE AND RESPONSIBILITY		
1. Have roles, responsibilities, and authorities been defined to facilitate effective environmental management? (M/E)		
2. Are they documented? (M)		
3. Are they communicated to the appropriate people? (M/E)		
evidence - Ask 5 people what their role is in the EMS.		
4. Are the appropriate human resources and skills provided for implementation and control of the EMS? (M)		
5. Are the appropriate technology and financial resources provided for Implementation and control of the EMS? (M)		
evidence - 1) Money 2) Staff or consultant. 3) New equipment.		
6. Has NASA's Environmental Pollution Control Board appointed a Management Representative to establish, implement, and maintain the system? (M/E)		
7. Does this appointee(s) report to GRC's Environmental Pollution Control Board concerning the performance and improvement in the system? (M)		
evidence - Meeting minutes or written report.		

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QUESTIONS SPECIFIC TO GRC EMS 4.4.1 IDENTIFIED ROLES		
8. Review recent version of GRC's EMO Organization Charts. Is this the recent version? (M)		
9. Review recent OSAT Annual Operating Agreement for EMS budget to meet GRC EMS O/Ts.((M)	
10. Review recent Safety, Health, Env., & Security Training Committee mtg minutes addressing 9.	/11/01(M)	
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC)		= [X}/10* 100 # Observations (O)
# of CPARs generated		# Observations (O)

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.2 TRAINING, AWARENESS AND COMPETENCE		
1. Have the EMS training needs been identified within the GRC? (M/E)		
2. Have the personnel whose work may create a significant impact on the environment received the appropriate training? (M/E)		
evidence - Check training records for 5 team members.		
3. Are the personnel who perform the tasks that can cause significant environmental impacts competent on the basis of appropriate education, training, and/or experience? (M/E)		
4. Is there evidence that relevant team members have received job specific training (sig. Aspects, spill kit, role)? (M/E)		
evidence - Check training records for 5 team members.		
5. Are procedures established and maintained to make the employees aware of the Environmental Policy, procedures, and the EMS? (M/E)		
evidence - Check training records for 10 team members.		
6. Is there evidence that team members understand or comprehend the general awareness training? (M/E)		
evidence - Ask the selected 5 team members questions.		
7. Do the procedures make employees aware of the significant environmental impacts of their work activities? (M/E)		
8. Does the training address the roles and responsibilities for achieving conformance with the EMS, including the emergency and response requirements? (M/E)		
9. Does the training make employees aware of the potential consequences of the departure from specified operating procedures? (M/E)		
10. Does the training material meet the ISO requirements? (M)		
evidence - Look at the training outlines to verify.		

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QUESTIONS SPECIFIC TO GRC EMS 4.4.2 PROCEDURES		
11. Has GRC completed the EMS Training Needs Assessment? (M)		
12. Has the GRC ESP/ESAP & GRC Env. Award been implemented? (M)		
evidence - review EMO selected environmental ideas for implementation.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC) # of CPARs generated	Percentile	= [X}/12* 100 # Observations (O)

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.3 COMMUNICATION		
1. Has GRC established procedures for internal communication related to its EMS? (M/E)		
evidence - 1) Any non conformance reports. 2) Monitoring and measuring reports. 3) Legal and Other Requirements.		
2. Are these procedures maintained? (M/E)		
3. Has GRC established procedures for receiving, documenting, and responding to relevant communication from external interested parties? (M/E)		
evidence - Ask legal and public affairs representatives if they have received environmental communications.		
4. Are these procedures followed? (M/E)		
5. Has GRC considered a process for external communication on its significant environmental aspects? (M/E)		
evidence - 1) External communication log book. 2) Call general number and request Policy. 3) Check correspondence with regulators.		

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QUESTIONS SPECIFIC TO GRC EMS 4.4.3 PROCEDURES		
6. Has GRC Employee Help Line concerning its EMS been effective? (M/E)		
evidence - call 38848 and test environmental assistance and concerns		
7. Has GRC external communication been effective? (M?E)		
evidence - review EMO and EPD recent coordinated environmental responses.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC) # of CPARs generated		= [X}/7* 100 # Observations (O)

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.4/4.4.5 EMS DOCUMENTATION AND DATA CONTROL		
1. Has GRC established information in electronic or paper form that describes the core elements of the EMS and their interaction? (M/E)		
2. Does this information provide direction to related documentation? (M/E)		
3. Is this information maintained? (M/E)		
4. Have procedure(s) been established for controlling the EMS Documents? (M/E)		
5. Do the procedures ensure that documents can be located and that current versions are available at relevant locations? (M/E)		
6. Do the procedure(s) address periodic review, revision, and approval for adequacy by authorized personnel? (M/E)		
7. Do the procedure(s) ensure that obsolete documents are promptly removed or assured against unintended use? (M/E)		
8. Do the procedure(s) ensure that obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified? (M/E)		
9. Are procedures and responsibilities established concerning the creation and the modification of documents? (M/E)		
10. Are EMS documents legible, dated, readily identified, maintained in orderly manner, and retained for a specified period? (M/E)		
11. Is there evidence that the EMS manual is complete? (M/E)		
12. Is there evidence that an EMS Document Control program is in place? (M/E)		
evidence - A list of documents with locations shown.		
13. Is there evidence that the documents can be located? (M/E)		
evidence - Ask 5 team members to find a specific document.		

14. Is there evidence the documents are periodically reviewed or revised and approved by authorized personnel? (M/E)		
evidence - 1) Look at EMS document for revision dates.		
2) Look at 5 work instructions for approvals.		
15. Is there evidence that current versions of relevant documents are located where they are needed? (M/E)		
evidence - Check 5 documents for version status.		
16. Is there evidence that the documents are complete? (M/E)		
evidence - Look for blank spaces.		
QUESTIONS SPECIFIC TO GRC EMS 4.4.4/4.4.5 PROCEDURES		
17. Is APPENDIX A, NPG8553/ISO 14001 Cross Reference the current version? (M)		
evidence - Check for current version.		
18. Has GRC removed obsolete copies of controlled documents? (M)		
evidence - review the most recent obsolete controlled documents.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score.		
Calculate the percentage for each element.		
	Percentile	= [X]/18*100
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.6 OPERATIONAL CONTROL		
1. Are there documented procedures that relate to each significant aspect, designed to lessen the impact of that aspect? (M)		
2. Are there documented procedures related to maintenance activities, addressing the potential environmental impacts? (M/)		
3. Are there documented procedures to cover other situations where their absence could lead to deviations from the environmental policy and the objectives and targets? (M/E)		
4. Are operating criteria stipulated in the procedures? (M/E)		
5. Are there procedures related to the significant environmental aspects of goods and services?(M	/E)	
6. Are there procedures for communicating relevant procedures and requirements to suppliers and contractors? (M)		
7. Is there evidence that the operations associated with the significant Environmental Aspects have been identified? (M)		
evidence - A list of relevant operations.		
8. Is there evidence that operations associated with the significant Environmental Aspects have documented operational procedures? (M/E)		
evidence - 1) Check standardized work for 5 processes. 2) Check for maintenance standardized work.		
, ·	<u> </u>	
9. Is there evidence that operating criteria are stipulated in the Operational Control documents?(I evidence - Standardized work contains Env. Key points.	vi)	

10. Is there evidence that suppliers and contractors have been communicated to regarding relevant procedures and requirements? (M/E)		
evidence - 1) Contractor/supplier handbook.		
2) Receipts showing distribution of handbook.		
11. Is there evidence that team members can demonstrate control of the operation? (M/E)		
evidence - Have 2 team members perform same operation.		
QUESTIONS SPECIFIC TO GRC EMS 4.4.6 PROCEDURES		
12. When was the last visual observation of EMS activities or review of EMS records? (M)		
evidence - Ask EMS Rep. to provide verification.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score.		
Calculate the percentage for each element.		
	Percentile	= [X]/12*100
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.4.7 EMERGENCY PREPAREDNESS AND RESPONSE		
1. Are there procedures for identifying the potential for accidents and emergency situations? (M/	E)	
2. Is there evidence that the ERP has been maintained? (M/E)		
evidence - 1) Revision dates on the ERP. 2) Management review meeting minutes. 3) Reflection results after emergencies.		
3. Are there procedures for responding to accidents and emergency situations? (M/E)		
4. Are there procedures for preventing and mitigating the environmental impacts associated with accidents and emergency situations? (M/E)		
5. Does GRC review and revise its emergency preparedness and response procedures when necessary? (M/E)		
6. Does GRC review and revise its emergency preparedness and response procedures after the occurrence of accidents or emergency situations? (M/E)		
evidence - Incident reports vs. modifications to the ERP.		
7. Does GRC periodically test such procedures? (M/E)		
evidence - Evaluation documentation of the test.		

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QUESTIONS SPECIFIC TO GRC EMS 4.4.7 PROCEDURES		
8. Has GRC reviewed/revised any of the responses to abnormal operations? (M)		
evidence - 10. Review recent Safety, Health, Env., & Security Training Committee mtg minutes.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.		
	Percentile	= [X]/8*100
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		

22 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.5.1 MONITORING AND MEASUREMENT		
1. Is environmental performance regularly monitored? (M/E)		
2. Have specific environmental performance indicators been established which relate to the GRC's objectives and targets and what they are? (M/E)		
3. Are control processes in place to regularly calibrate measuring and monitoring equipment and systems? (M/E)		
4. Is there a Procedure in place to periodically evaluate compliance with relevant legal and other compliance? (M)		
5. Are there Procedures Documents? Verification? (M)		
6. Are the Procedures adequate? (M)		
7. Is there evidence that the monitoring and measuring procedures are being maintained? (M/E)		
evidence - 1) Revisions have taken place. 2) Current versions at all locations.		
8. Is there evidence that the key characteristics of the operations which can cause significant impacts are monitored/measured? (M/E)		
evidence - Monitoring/measuring records.		
9. Is there evidence that GRC is tracking the performance of achieving objectives and targets? (M)		
evidence - Charts/graphs tracking performance.		
10. Is there evidence that the organization is tracking the performance of controlling the operations? (M)		
evidence - Charts/graphs tracking performance.		

evidence - 1) Stickers on equipment. 2) Record of the calibration. 3) Log book for calibration. 12. Is there evidence of a compliance evaluation being performed? (M/E) evidence - 1) Record of the evaluation. 2) Report results of the evaluation. 3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. # of EMS Nonconformances (NC) # Observations (O)	11. Is there evidence that the relevant measuring equipment is being calibrated and maintained? ((M/E)		
3) Log book for calibration. 12. Is there evidence of a compliance evaluation being performed? (M/E) evidence - 1) Record of the evaluation. 2) Report results of the evaluation. 3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X}/13* 100 # of EMS Nonconformances (NC) # Observations (O) #	evidence - 1) Stickers on equipment.		
12. Is there evidence of a compliance evaluation being performed? (M/E) evidence - 1) Record of the evaluation. 2) Report results of the evaluation. 3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X}/13* 100 # of EMS Nonconformances (NC) # Observations (O)	2) Record of the calibration.		
evidence - 1) Record of the evaluation. 2) Report results of the evaluation. 3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X}/13* 100 # of EMS Nonconformances (NC) # Observations (O) #	3) Log book for calibration.		
2) Report results of the evaluation. 3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X}/13* 100 # Observations (O)	12. Is there evidence of a compliance evaluation being performed? (M/E)		
3) 3rd party audit report. QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X}/13* 100 # of EMS Nonconformances (NC) # Observations (O)	evidence - 1) Record of the evaluation.		
QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES 13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC)	2) Report results of the evaluation.		
13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M) evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL SCORE TOTAL PERCENT O.00% Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)	3) 3rd party audit report.		
evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts TOTAL SCORE TOTAL PERCENT Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)	QUESTIONS SPECIFIC TO GRC EMS 4.5.1 PROCEDURES		
TOTAL SCORE 0 TOTAL PERCENT 0.00% Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)	13. How are GRC O/Ts environmental performance indicators (EPI) being tracked?(M)		
Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)	evidence - request tracking information on EPIs assocaiated with GRC EMS O/Ts		
Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)			
Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)			
Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)			
Add up the Evaluation for your score. Calculate the percentage for each element. Percentile = [X]/13* 100 # of EMS Nonconformances (NC) # Observations (O)	TOTAL SCORE	0	
Calculate the percentage for each element. Percentile = [X}/13* 100 # of EMS Nonconformances (NC) # Observations (O)	TOTAL PERCENT	0.00%	
# of EMS Nonconformances (NC) # Observations (O)			
# of EMS Nonconformances (NC) # Observations (O)	Calculate the percentage for each element.		
		Percentile	= 7
# of CPARs generated			# Observations (O)
	# of CPARs generated		

24 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.5.2 NONCONFORMANCE & CORRECTIVE & PREVENTIVE ACTION		
1. Is someone assigned to have the authority and responsibility for handling and investigating nonconformance? (M/E)		
2. Is someone initiating the completion of corrective and preventive actions? (M/E)		
evidence - 1) Nonconformance reports/records. 2) Responders had authority. 3) Preventive action is evident.		
3. Are changes being made to documented procedures resulting from corrective and preventive actions? Verification? (M/E)		
4. Are the corrective and preventive actions appropriate to the magnitude of problems and commensurate with the environmental impact encountered? (M/)		
evidence - Preventive Action will work (opinion)		
5. Are both corrective and preventive actions being taken where needed? (M/E)		
evidence - 1) Ask if there were any. 2) Check nonconformance reports.		

25 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

QUESTIONS SPECIFIC TO GRC EMS 4.5.2 PROCEDURES AND PROCESSES		
6. Review recentt CPAR Log for EMO. (0540) (M)		
evidence - request review of open CPARs for EMO 0540.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.		
	Percentile = $[X]/6*100$	
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		

26 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

ISO 14001 EMS AUDIT			
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS	
4.5.3 RECORDS			
1. Are records identified? (M/E)			
evidence - Look at the records to determine.			
2. Are records maintained, including training records, audit records, and management review minutes? (M/E)			
3. Are records disposed of properly? Are retention times established? (M/E)			
4. Are records legible? (M/E)			
5. Are records readily retrievable, but protected against damage? (M/E)			
evidence - Ask team members to retrieve records.			
6. Are records traceable to the activities, products, or services involved? (M/E)			
evidence - Review 5 random records.			
7. Is there evidence that records are protected against damage? (M/E)			
evidence - Look at hazardous waste transportation records.			
8. Is there evidence that the retention program for the records is being implemented? (M/E)			
evidence - Ask organizationto retrieve a record.			

27 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

SPECIFIC QUESTIONS RELATED TO GRC EMS 4.5.3 RECORDS		
9. Review recent GRC EMS Audit Report. (M)		
evidence - check retention time per LeR 3.7.3 Records Management		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.		
	Percentile = $[X]/9*100$	
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		

28 NASA GLENN RESEARCH CENTER INTERNAL EMS AUDIT CHECKLIST

ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.5.4 ENVIRONMENTAL MANAGEMENT SYSTEM AUDIT		
1. Is there an internal audit program in place? (M/E)		
2. Have internal audits been performed to schedule? (M)		
evidence - Look for audit reports.		
3. Do the internal audits cover all clauses of the standard? (M)		
4. Are all departments and areas audited within the scope? (M)		
5. Is the audit schedule based on the environmental importance of activities? (M)		
6. Are the internal audits based on results of previous audits? (M)		
7. Is the audit frequency, methodology, and scope well defined? (M)		
8. Are the internal auditors independent of the areas they are auditing? (M)		
9. Are the Internal Auditors trained and qualified? (M)		
evidence - 1) Look for training records. 2) Ask auditors questions.		
10. Is there evidence that the program or procedures are being maintained? (M)		
evidence - Audit results with more scheduled.		
11. Is there evidence that the results of audits have been provided to management? (M)		
evidence - Meeting minutes or report routed.		

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QUESTIONS SPECIFIC TO GRC EMS 4.5.4 AUDIT PROGRAM		
12. Has GRC Internal EMS Auditors completed GRC's EMS Audit Matrix for 2002? (M)		
evidence - review recent Internal EMS Audit Matrix and EMS Audit Report		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.		= [X}/12* 100
# of EMS Nonconformances (NC) # of CPARs generated		# Observations (O)

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ISO 14001 EMS AUDIT		
QUESTIONS RE: STANDARDS	EVALUATION 0 OR 1	COMMENTS
4.6 MANAGEMENT REVIEW		
1. Has GRC's Environmental Pollution Control Board determined the interval at which it reviews the EMS? (M)		
2. Has it been reviewing the EMS according to these intervals? (M)		
evidence - Ask top management.		
3. Does this review ensure continuing suitability of the EMS? (M)		
evidence - Look at agenda of meeting.		
4. Does this review ensure continuing adequacy of the EMS? (M)		
evidence - Look at agenda of meeting.		
5. Does this review ensure continuing effectiveness of the EMS? (M)		
evidence - Look at agenda of meeting.		
6. Is the necessary information collected to enable management to carry out this evaluation? (M)		
evidence - Ask to see what was provided to management.		
7. Is this review documented? (M)		
evidence - Meeting results.		
8. Does the review address needs for changes to the EMS due to audit results, changing circumstances, and the commitment to continual improvement? (M)		
evidence - 1) Look at agenda and results. 2) Look at what was provided to management.		
9. Is there evidence that the management review addressed the possible need for changes to Policy, Objectives, Targets and other elements of the EMS? (M)		
evidence - 1) Look at agenda and results.		

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QUESTIONS SPECIFIC TO GRC EMS 4.6 Management Review		
10. Is the next ECPB Meeting scheduled for 2002? (M)		
evidence - review the last EPCB Meeting Minutes.		
TOTAL SCORE	0	
TOTAL PERCENT	0.00%	
Add up the Evaluation for your score. Calculate the percentage for each element.		
	Percentile = $[X]/10*100$	
# of EMS Nonconformances (NC)		# Observations (O)
# of CPARs generated		